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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,693	09/04/2003	Bob McGuire	15912/09032	8575
27530	7590	04/21/2006	EXAMINER	
NELSON MULLINS RILEY & SCARBOROUGH, LLP 1320 MAIN STREET, 17TH FLOOR COLUMBIA, SC 29201			GAY, JENNIFER HAWKINS	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/656,693		MCGUIRE ET AL.	
	Examiner		Art Unit	
	Jennifer H. Gay		3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-27 is/are allowed.
- 6) ☒ Claim(s) 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dallas et al. (previously cited) in view of Donald et al. (previously cited).

Regarding claim 28: Dallas et al. discloses an independent screwed wellhead **20** that includes the following features:

- A top end for mating engagement with a bottom end of a flange **50** to be mounted thereto.
- A machined surface (Figure 3a) for mating with a complementary frusto-conical surface of the flange.
- A seal **68** between the wellhead and flange.

Dallas et al. discloses all of the limitations of the above claims except for the seal being a metal-to-metal seal.

Donald et al. discloses a wellhead. Donald et al. further teaches that it is well known in the art to use either o-rings or metal-to-metal seals to seal between components of the wellhead (2:37-42).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the metal-to-metal seal of Donald et al. to form a fluid seal between the wellhead and flange of Dallas et al., since the examiner takes Official Notice of the equivalence of o-rings and metal-to-metal seals for their use in the wellhead art and the selection of any of these known equivalents to form the seal between the wellhead and flange would be within the level of ordinary skill in the art as evidenced by Donald et al.

Regarding claim 29: Dallas et al. and Donald et al. discloses all of the limitations of the above claims except for the angle of the frusto-conical surface being offset from an axial plane of the wellhead by 4°–10°. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the frusto-conical surfaces of Dallas et al. with an angel that was offset from an axial plane of the wellhead by 4°–10°, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 30: The apparatus of Dallas et al. includes annular grooves formed in the sidewall of the flange that include o-rings 68 to provide a fluid seal with the inner sidewall of the wellhead.

Allowable Subject Matter

3. Claims 2-27 are allowed.

Response to Arguments

4. In view of applicant's amendment, the objection claim 28 has been withdrawn.
5. It is noted that applicant has not argued against the examiner's assertion that claim 29 is obvious as being merely a design choice requiring only routine skill in the art to determine. The lack of argument against this rejection is taken to indicate that the applicant agrees that the angle of the frusto-conical surface being offset from an axial plane of the wellhead by 4°-10° is merely a design choice. Therefore the rejection of this claim as not being a design choice cannot be argued in future responses.
6. Applicant's arguments filed March 9, 2006 have been fully considered but they are not persuasive.

Applicant has argued against the use of Donald et al. as evidence of the equivalence between O-rings or elastomer seals and metal-to-metal seals. Applicant specifically argues that Donald et al. does not teach the equivalence of the two types of

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seals for use in independent screwed wellheads. While the examiner agree that Donald et al. does not teach an independent screwed wellhead, Donald et al. still teaches that it is well known in the general wellhead art to use metal-to-metal seals in place of elastomer seals. This is a general teaching for the wellhead art and need not be specific to the type of wellhead in which the seals are used.

Applicant has further argued that Donald et al. does not teach what “metal-to-metal seal” means. While the examiner agrees that Donald et al. does not specifically teach the details or specifics of the metal-to-metal seal, it is noted that claim 28 merely recites “a high-pressure metal-to-metal seal”. As a wellhead or cap is a high pressure environment any seal used in the wellhead would have to be a high pressure seal. Thus Donald et al. infers that the disclosed seals are high pressure seals.

With specific regards to the rejection of claim 28, applicant has argued the examiners taking of Official Notice of the equivalence between elastomer seals and metal-to-metal seals. In response the examiner notes that Donald et al. has been provided as proof of this equivalence and applicant’s arguments against the use of this reference have been addressed above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

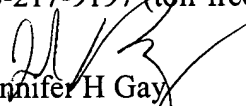
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer H Gay
Primary Examiner
Art Unit 3672

JHG 
April 18, 2006